



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/760,280	01/21/2004	Akihiro Kimura	03500.017840.	9839

5514 7590 08/22/2006

FITZPATRICK CELLA HARPER & SCINTO  
30 ROCKEFELLER PLAZA  
NEW YORK, NY 10112

EXAMINER
----------

RAABE, CHRISTOPHER M

ART UNIT	PAPER NUMBER
----------	--------------

2879

DATE MAILED: 08/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/760,280	<b>Applicant(s)</b> KIMURA ET AL.	
	<b>Examiner</b> Christopher M. Raabe	<b>Art Unit</b> 2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 June 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3,5 and 6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,5 and 6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>5/17/06</u> . | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Amendment filed June 5, 2006 has been entered and acknowledged by the examiner.
2. Applicant's arguments with respect to claims 1,3,5,6 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1,3,5,6 are rejected under 35 U.S.C. 103(a) as being obvious over Sato (USPN 2001/0039161), in view of Suzuki (USPN 6638128).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37

Art Unit: 2879

CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(I)(1) and § 706.02(I)(2).

With regard to claim 1,

Sato discloses an energization processing apparatus for performing, in a reduced-pressure atmosphere, an energization process on electric conductors which are placed on a substrate, comprising: a vessel which has an exhaust hole and which covers the electric conductors and one region on a surface of the substrate where the electric conductors are placed, to create an airtight atmosphere between the substrate and the vessel (302, 106, 101 of fig 3); a first temperature adjusting mechanism for adjusting a temperature of the one region on the surface of the substrate covered with the vessel (311, 312 of fig 3); and a second temperature adjusting mechanism for adjusting a temperature of another region of the substrate (other 311, 312 of fig 3).

Sato does not disclose the second temperature adjusting mechanism for adjusting the temperature of a region on the surface of the substrate not covered with the vessel.

Suzuki does disclose a second temperature adjusting mechanism for adjusting a temperature of another region on the surface of a substrate not covered with a vessel when there is a first temperature adjusting mechanism for adjusting a temperature of a first region on the surface of the substrate covered with the vessel (column 25, line 50 – column 26, line 10), providing an even temperature distribution across the substrate.

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the configuration of Suzuki into the apparatus of Sato in order to provide an even temperature distribution across the substrate.

With regard to claim 3,

Sato discloses an energization processing method for performing, in a reduced-pressure atmosphere, an energization process on electric conductors which are placed on a substrate, comprising the steps of: covering the electric conductors and one region on a surface of the substrate where the electric conductors are placed with a vessel which has an exhaust hole to create an airtight atmosphere between the substrate and the vessel (302 of fig 3); reducing a pressure of the airtight atmosphere (paragraph 108); and heating the other region of the substrate at a temperature higher than the temperature of the one region and energizing the electric conductors (paragraph 111).

Sato does not disclose heating another region on the surface of the substrate not covered with the vessel with a heat quantity larger than a heat quantity for heating the one region on the surface of the substrate covered with the vessel.

Suzuki does disclose (implicitly) heating another region on the surface of a substrate not covered with a vessel with a heat quantity larger than a heat quantity for heating one region on the surface of the substrate covered with the vessel (column 25, line 50 – column 26, line 10:

Art Unit: 2879

note in particular lines 58-67 of column 25), providing an even temperature distribution across the substrate.

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the configuration of Suzuki into the apparatus of Sato in order to provide an even temperature distribution across the substrate.

With regard to claim 5,

Sato discloses the energization processing apparatus according to claim 1.

Sato does not disclose the first temperature adjusting mechanism having a first thermal conducting member touching a surface of the substrate just opposite the one region covered with the vessel, while the second temperature adjusting mechanism has a second thermal conducting member touching a surface of the substrate just opposite the another region not covered with the vessel.

Suzuki does disclose the first temperature adjusting mechanism having a first thermal conducting member touching a surface of the substrate just opposite the one region covered with the vessel, while the second temperature adjusting mechanism having a second thermal conducting member touching a surface of the substrate just opposite the another region not covered with the vessel (column 25, line 50 – column 26, line 10 and 102,103 of fig 28), providing an even temperature distribution across the substrate.

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the configuration of Suzuki into the apparatus of Sato in order to provide an even temperature distribution across the substrate.

With regard to claim 6,

Art Unit: 2879

Sato discloses the energization processing apparatus according to claim 1.

Sato does not disclose the second temperature adjusting mechanism to be capable of thermal generation larger than that of the first temperature adjusting mechanism, to suppress a temperature difference between the one region covered with the vessel and the another region not covered with the vessel.

Suzuki does disclose the second temperature adjusting mechanism to be capable of thermal generation larger than that of the first temperature adjusting mechanism, to suppress a temperature difference between the one region covered with the vessel and the another region not covered with the vessel (column 25, line 50 – column 26, line 10: note in particular lines 58-67 of column 25), providing an even temperature distribution across the substrate.

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the configuration of Suzuki into the apparatus of Sato in order to provide an even temperature distribution across the substrate.

### ***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

Art Unit: 2879

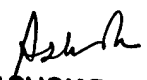
however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher M. Raabe whose telephone number is 571-272-8434. The examiner can normally be reached on m-f 7am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on 571-272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CR

  
**ASHOK PATEL**  
**PRIMARY EXAMINER**